

In re Patent Application of:

TAILLIET

Serial No. 10/025,372

Filing Date: December 19, 2001

In the Claims:

Claims 1-24 (Cancelled).

25. (Previously presented) A method for adjusting a duration of an internal timing signal in an integrated circuit, the method comprising:

activating the internal timing signal in the integrated circuit;

sequentially sending calibration values to an input of the integrated circuit, the calibration values being based upon a typical value of the duration of the internal timing signal;

determining a last calibration value received or being received by the integrated circuit based upon an expiration of the internal timing signal; and

adjusting the duration of the internal timing signal based upon the determination of the last calibration value.

26. (Previously presented) The method according to Claim 25 wherein each calibration value corresponds to a ratio of the typical value to a total duration that has elapsed from activation of the internal timing signal to a time when the calibration value is sent.

27. (Previously presented) The method according to Claim 26 wherein the adjusting is performed by an adjustment device including an initialization value.

In re Patent Application of:
TAILLIET
Serial No. 10/025,372
Filing Date: December 19, 2001

28. (Previously presented) The method according to Claim 27 further comprising assigning a factor to each calibration value corresponding to the initialization value.

29. (Previously presented) The method according to Claim 25 wherein sequentially sending the calibration values comprises sequentially sending the calibration values after a predetermined period has elapsed.

30. (Previously presented) The method according to Claim 25 wherein the internal timing signal is a function of at least one reference provided by a reference circuit, and wherein adjusting the duration of the internal timing signal comprises adjusting the duration of the internal timing signal via the reference circuit.

31. (Previously presented) A method for adjusting a reference in at least one integrated circuit comprising:

generating an internal timing signal in the at least one integrated circuit based upon the reference;

adjusting a duration of the internal timing signal to obtain calibration data; and

adjusting the reference in the at least one integrated circuit based upon the calibration data.

32. (Previously presented) The method of Claim 31 wherein adjusting the reference comprises adjusting the reference using a reference circuit in the at least one integrated circuit.

In re Patent Application of:

TAILLIET

Serial No. 10/025,372

Filing Date: December 19, 2001

33. (Previously presented) The method of Claim 32 wherein the reference circuit comprises a current source.

34. (Previously presented) The method of Claim 32 wherein the reference circuit comprises at least one capacitor.

35. (Previously presented) The method of Claim 32 wherein the calibration data is also applied to a reference circuit of at least one additional integrated circuit, the reference circuit of the at least one additional integrated circuit being substantially identical to the reference circuit of the at least one integrated circuit.

36. (Previously presented) The method of Claim 31 wherein the at least one integrated circuit comprises a non-volatile memory integrated circuit, and wherein the reference comprises a signal for programming the non-volatile memory integrated circuit.

37. (Previously presented) The method of Claim 36 wherein adjusting the duration of the internal timing signal comprises:

programming data at an address in the non-volatile memory integrated circuit; and

successively sending calibration values to an input of the integrated circuit to determine an end of the programming based upon a last calibration value received or being received.

38. (Previously presented) The method of Claim 37

In re Patent Application of:
TAILLIET
Serial No. 10/025,372
Filing Date: December 19, 2001

further comprising sending all of the calibration values to the non-volatile memory integrated circuit prior to programming, and wherein the calibration values are defined as a function of specifications of the non-volatile memory integrated circuit.

39. (Previously presented) The method of Claim 37 wherein the address is determined internally to the integrated circuit.

40. (Previously presented) The method of Claim 37 wherein programming data at the address comprises programming data based upon an external programming command.

41. (Previously presented) The method of Claim 37 wherein the non-volatile memory integrated circuit further comprises a data input register, and wherein the calibration values are stored in the data input register.

42. (Previously presented) A method for adjusting respective references in a plurality of integrated circuits comprising:

generating an internal timing signal in a first one of the integrated circuits based upon the reference thereof;

adjusting a duration of the internal timing signal to obtain calibration data; and

adjusting the reference in each of the integrated circuits using respective reference circuits thereof based upon the calibration data.

In re Patent Application of:
TAILLIET
Serial No. 10/025,372
Filing Date: December 19, 2001

43. (Previously presented) The method of Claim 42 wherein the reference circuit comprises a current source.

44. (Previously presented) The method of Claim 42 wherein the reference circuit comprises at least one capacitor.

45. (Previously presented) The method of Claim 42 wherein the reference circuits of the integrated circuits are substantially identical to one another.

46. (Previously presented) The method of Claim 42 wherein the reference comprises a signal for programming the memory.

47. (Previously presented) The method of Claim 46 wherein the integrated circuits comprises non-volatile memory integrated circuits, and wherein adjusting the duration of the internal timing signal comprises:

programming data at an address in the first non-volatile memory integrated circuit; and

successively sending calibration values to an input of the first non-volatile memory integrated circuit to determine an end of the programming based upon a last calibration value received or being received.

48. (Previously presented) The method of Claim 47 further comprising sending all of the calibration values to the first non-volatile memory integrated circuit prior to programming, and wherein the calibration values are defined as a

In re Patent Application of:
TAILLIET
Serial No. 10/025,372
Filing Date: December 19, 2001

function of specifications of the non-volatile memory integrated circuit.

49. (Previously presented) The method of Claim 47 wherein the address is determined internally to the integrated circuit.

50. (Previously presented) The method of Claim 47 wherein programming data at the address comprises programming data based upon an external programming command.

51. (Previously presented) The method of Claim 47 wherein the first non-volatile memory integrated circuit further comprises a data input register, and wherein the calibration values are stored in the data input register.

52. (Previously presented) An integrated circuit comprising:

- a circuit for generating an internal timing signal from at least one reference;

- temporary storage means for recording data sent to a data input of the integrated circuit after an activation of the internal timing signal;

- a non-volatile memory element for storing data present in said temporary storage means upon an expiration of the internal timing signal; and

- a reference circuit and at least one adjustment device associated therewith for cooperating to adjust the at least one reference based upon the data stored in said non-volatile memory

In re Patent Application of:
TAILLIET
Serial No. 10/025,372
Filing Date: December 19, 2001

element.

53. (Previously presented) The integrated circuit according to Claim 52 wherein said reference circuit comprises a plurality of reference circuits, and a first one of said reference circuits being associated with said internal timing signal generating circuit; and wherein said at least one adjustment device comprises a first adjustment device for adjusting the first reference circuit and at least one second adjustment device for adjusting another of said reference circuits, said other reference circuit being substantially identical to said first reference circuit, and the data stored in said non-volatile memory element being applied to said first and second adjustment devices.

54. (Previously presented) The integrated circuit according to Claim 52 wherein the integrated circuit comprises a non-volatile memory device, wherein the internal timing signal comprises a programming signal for the non-volatile memory, and wherein said temporary storage means comprises a data input register.

55. (Previously presented) The integrated circuit according to Claim 52 wherein said reference circuit comprises a current reference circuit.

56. (Previously presented) The integrated circuit according to Claim 52 wherein said reference circuit comprises at least one of a capacitor and a capacitor network.

In re Patent Application of:
TAILLIET
Serial No. 10/025,372
Filing Date: December 19, 2001

57. (Previously presented) The integrated circuit according to Claim 52 wherein said reference circuit comprises at least one resistor.

58. (Previously presented) An integrated circuit comprising:

- an array of non-volatile memory cells;
- a circuit for generating an internal timing signal from at least one reference, the internal timing signal being a programming signal for the non-volatile memory cells;
- a temporary storage device for recording data sent to at least one data input of the integrated circuit after an activation of the internal timing signal;
- said array of non-volatile memory cells comprising at least one cell for storing data present in said temporary storage device upon an expiration of the internal timing signal; and
- a reference circuit and at least one adjustment device associated therewith for cooperating to adjust the at least one reference based upon the data stored in said at least one cell.

59. (Previously presented) The integrated circuit according to Claim 58 wherein said reference circuit comprises a plurality of reference circuits and a first one of said reference circuits being associated with said internal timing signal generating circuit; and wherein said at least one adjustment device comprises a first adjustment device for adjusting the first reference circuit and at least one second adjustment device for adjusting another of said reference circuits, said other

In re Patent Application of:

TAILLIET

Serial No. 10/025,372

Filing Date: **December 19, 2001**

reference circuit being substantially identical to said first reference circuit, and the data stored in said at least one cell being applied to said first and second adjustment devices.

60. (Previously presented) The integrated circuit according to Claim 58 wherein said reference circuit comprises at least one of a current reference circuit, a capacitor, and a resistor network.